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IMAGING AND DIAGNOSTIC TESTING

THE PROGNOSTIC UTILITY OF EXERCISE ECG TESTING IN PATIENTS OVER 75 YEARS OF AGE WITH ANGINA

ACC Poster Contributions
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Background: Exercise testing plays an important role in the diagnostic and prognostic assessment of CAD. The sensitivity and specificity of the tests are largely dependent on the prevalence of CAD and are generally higher for the elderly population.

Most clinical studies have been done in the younger and middle age groups. How exercise capacity affects those >75 years of age is unlikely to be the subject of a controlled trial, given the many benefits known to be associated with physical activity.

We sought to determine the value of exercise capacity (metabolic equivalents or METS) compared to ECG ischemic changes among patients over 75 years of age referred for CAD workup.

Methods: We studied 2383 patients over 75 years who had treadmill exercise stress testing and compared the value of exercise capacity to ECG ischemic changes for prediction of all-cause death.

Results: During a mean follow-up of 6.4+/- 4.1 years, 1046 patients (44%) died. The median exercise capacity was 6.2 METS. Poor exercise capacity (<6.2 METS) was a strong predictor of death (adjusted hazard ratio of 0.88, 95% CI: 0.85-0.90, p = <0.001) but not ECG ischemic changes (adjusted hazard ratio of 0.97, 95% CI: 0.84 -1.13, p = 0.69). Other significant predictors include the male gender and age.

Conclusions: Patients 75 and older who can exercise more during ECG stress testing (>6.2 METS) have lower all-cause mortality rates. Exercise capacity is a stronger predictor than ECG ischemic changes in this population of elderly patients referred for chest pain.